

## REMARKS

Claims 1-7, 9-17, and 19-29 are pending in the instant application. Claims 1-7 and 9-27 presently stand rejected. Claims 1, 5, 13, 14, 17, 19, and 21 are amended herein. Claim 18 is hereby cancelled without prejudice. Claims 28 and 29 are newly presented. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

### *Claim Rejections – 35 U.S.C. § 103*

Claims 1-7 and 9-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rolland et al. (US 5,799,119) in view of Johannessen et al. (US 2004/0008944 A1).

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03.

Amended independent claim 1 now recites, in pertinent parts,

... wherein the second lateral dimension of the offset waveguide section is substantially constant over a length parallel to the propagation axis; and

...

... wherein the length parallel to the propagation axis of the offset waveguide section is selected such that an optical signal propagating through the offset waveguide section includes two peaks offset about a center of the offset waveguide section when the optical signal reaches the first ends of the two branching waveguide sections.

Applicants respectfully submit that the combination of Rolland and Johannessen fails to teach or suggest an offset waveguide section having a substantially constant lateral dimension and a length such that an optical signal propagating through the offset waveguide section includes two peaks offset about a center of the offset waveguide section when the optical signal reaches the first ends of the two branching waveguide sections.

To be sure, Rolland fails to disclose strongly guiding input section 116 (see FIG. 4) having a length parallel to the propagating axis such that a signal propagating within section 116 would have two peaks offset about a center of section 116 when the signal

reaches the interface with branch arms 122 and 124. The only discusses within Rolland regarding the length of ridge triple mode section 16 (see FIG. 3), is that this section "is  $\approx$  40  $\mu$ m long..." (Rolland, col. 6, line 56). Rolland discusses the shape and structure of intermediate section 290 (see FIG. 7), but does not teach or suggest selecting the length of section 16 (FIG. 3) or section 116 (FIG. 4) such that a signal propagating within section 16 (or 116) would have two peaks offset about a center of section 16 when the signal reaches the interface with branch arms 22 and 24. Johannessen also fails to teach or suggest this element of claim 1.

Consequently, the combination of Rolland and Johannessen fails to teach or suggest all elements of claim 1, as required under M.P.E.P. § 2143.03. Independent claim 13 and 21 now include similar nonobvious elements as independent claim 1. Accordingly, Applicants request that the instant §103(a) rejections of claims 1, 13, and 21 be withdrawn.

The dependent claims are nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant § 103 rejections of dependent claims be withdrawn.

### **CONCLUSION**

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

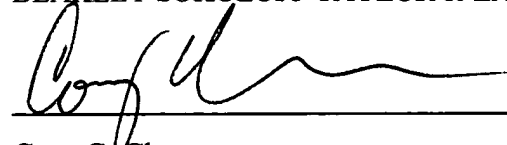
### CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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